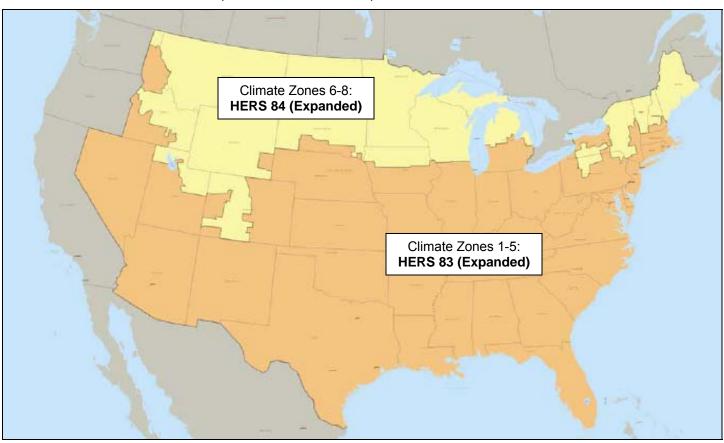


# ENERGY STAR Qualified Homes [DRAFT 8/16/05] National Performance Path Requirements

To qualify as ENERGY STAR, in addition to meeting the minimum HERS scores and mandatory requirements specified below, a home must be verified and field-tested in accordance with the HERS Guidelines by a RESNET-accredited Provider and meet all state and local codes.

### **ENERGY STAR Performance Requirements:**

Minimum Expanded HERS Score Required to Earn the ENERGY STAR<sup>1</sup>



Note: Due to the unique nature of some state codes, EPA has agreed to allow regionally-developed definitions of ENERGY STAR in California, Hawaii and the Pacific Northwest to continue to define program requirements in 2006.

### **ENERGY STAR Mandatory Requirements:**

Envelope <sup>2,3,4</sup>	Complete the ENERGY STAR Thermal Bypass Inspection Checklist
Ductwork <sup>5,6</sup>	Leakage ≤ 6 cfm to Outdoors / 100 sq. ft.
ENERGY STAR Products <sup>7,8,9,10</sup>	Include At Least One ENERGY STAR Qualified Product Category:  Heating or Cooling Equipment; OR  Windows; OR  Any Combination of 5 or More Light Fixtures, Fans (ceiling or bathroom), and/or Appliances
ENERGY STAR Scoring Exceptions	<ul> <li>Solar Photovoltaic electric generation cannot be used to increase the HERS Score to qualify for ENERGY STAR.</li> <li>No more than 5 Compact Fluorescent Lights (CFLs) can be used to increase the HERS Score to qualify for ENERGY STAR.</li> </ul>



## ENERGY STAR Qualified Homes [DRAFT 8/16/05] National Performance Path Notes

### General Notes and Requirements for the National ENERGY STAR Performance Path:

- 1. The appropriate climate zone for each building site shall be determined by the 2004 International Energy Conservation Code (IECC), Figure 301.1.
- 2. Insulation shall be equivalent to the 2006 HERS Reference Home. TO BE DELETED IN FINAL DOCUMENT
- 3. Each Thermal Bypass Inspection Checklist item must be verified. The Checklist includes the following 12 areas:
  - 1. Shower/Tub at Exterior Wall
  - 2. Insulated Floor above Garage
  - 3. Attic Knee Walls
  - 4. Attic Hatch/Drop-down Stair
  - 5. Cantilevered Floor
  - 6. Duct Shafts

- 7. Flue Shaft
- 8. Piping Shaft/ Penetrations
- 9. Dropped Ceiling/Soffit
- 10. Fireplace Wall
- 11. Staircase Framing at Exterior Wall/Attic
- 12. Whole-house Fan Attic Penetration
- 4. Tested envelope leakage must be determined and documented by a RESNET-certified rater using a RESNET-approved testing protocol.
- 5. Ducts must be sealed and tested to 6 cfm to outdoors / 100 sq. ft. of conditioned floor area <u>and</u> 9 cfm total / 100 sq. ft. Duct leakage testing can be waived if the ducts are located in conditioned space <u>AND</u> the envelope leakage has been tested to be at or below 3 ACH50 <u>OR</u> at or below 0.25 cfm50 per square foot of the building envelope. Duct leakage must be determined and documented by a RESNET-certified rater using a RESNET-approved testing protocol.
- 6. To prevent condensation, a minimum of R-4 insulation is recommended for ducts in conditioned space.
- 7. All requirements for ENERGY STAR qualified equipment shall be based on the latest ENERGY STAR specifications. Heating and cooling equipment should be sized according to RESNET-approved proper sizing protocols. More information on these protocols can be found in chapter 3,B.6.b.(7) of the HERS Standard.
- 8. ENERGY STAR qualified windows are recommended. Additional information can be found at www.energystar.gov.
- 9. ENERGY STAR qualified lighting fixtures installed in the following locations cannot be counted towards compliance with the ENERGY STAR reference home: storage rooms of any kind (e.g., closets, pantries, sheds), laundry rooms, or garages. Additional efficiency and savings can be achieved by installing other ENERGY STAR qualified products throughout the house (e.g., additional lighting, appliances, etc.). For more information, visit www.energystar.gov.
- 10. Efficient lighting fixtures represent a significant opportunity for persistent energy savings and a meaningful way to differentiate ENERGY STAR qualified homes from those meeting minimum code requirements. EPA intends to add the ENERGY STAR Advanced Lighting Package (ALP) as an additional requirement to the prescriptive path in 2009 and will, as part of the process, propose this change for industry comment in 2008. To learn more about the ALP, refer to <a href="https://www.energystar.gov/homes">www.energystar.gov/homes</a>.

#### Additional Notes and Requirements for the National ENERGY STAR Performance Path:

- 11. To ensure consistent exchange of indoor air, installation of a whole house mechanical ventilation system is recommended.
- 12. In homes with heat pumps, programmable thermostats must have "ramp-up" technology to prevent the excessive use of electric back-up heating.
- 13. In homes with oil or gas hydronic equipment, domestic water heating must be provided by the space heating boiler (tankless).